UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/798,632	03/11/2004	Michael V. Shuman	N0186 US	6665

37583   7590   05/11/2007

NAVTEQ NORTH AMERICA, LLC
222 MERCHANDISE MART
SUITE 900, PATENT DEPT.
CHICAGO, IL 60654

EXAMINER
RENDON, CHRISTIAN E

ART UNIT	PAPER NUMBER
3714	

MAIL DATE	DELIVERY MODE
05/11/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	**Applicant(s)**
Office Action Summary	10/798,632	SHUMAN ET AL.
	Examiner	**Art Unit**	
	Christian E. Rendón	3714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>30 January 2007</u>.

2a) ☒ This action is **FINAL.**   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle,* 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-37</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1-37</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on <u>11 March 2004</u> is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

1.   The claimed invention is directed to non-statutory subject matter. Claim 28 fails to create a tangible final result. Since the claim language states "provides programming tools to the end user" and the broadest reasonable interpretation of the word 'provide' is "make available for use" (Compact Oxford English Dictionary, 3rd edition Copyright @ 2005 by Oxford University Press). In other words, the claim is allowing a user permission to use the tools and nothing more; therefore the final product of the claim is intangible.

2.   Claims 1, 25, 28 and 31 describe the software manipulation of data to create a template of the source database as a final and useful result. However the source and template are not described as being stored in a tangible readable media, like a CD-ROM; therefore the claims are ineligible for patenting, since software is not within one of the four enumerated categories under 35 USC 101.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5, 7-8, 10-13, 15-16, 20, 23-24, 28-34 and 36-37 are rejected under 35 U.S.C. 102(b) as being anticipated by Graf et al. (US 4,645,459).

3.   Graf discloses a computer controlled imaging system that constructs a scene in
real-time from a library of images (Abstract). Graf discusses an aircraft flight simulation
(FS) as one of the many possible applications for the invented system (col. 1, lines 15-
17). The FS system contains a visual subsystem for a vehicle simulator (col. 1, line 25)
that receives flight data from the FS computer and terrain data from a 'gaming area'
database (col. 1, lines 17-21) and creates a scene from the perspective of the pilot in
the cockpit of the aircraft (col. 1, lines 21-24). The visual simulator uses the terrain and
flight path or vehicle control data (col. 1, lines 36-40) to determine the location and
viewing direction of the visual system of the vehicle (col. 7, lines 12-14). The scenes
viewed by the pilot can comprise of images that are fictitious or represent real-life
places from anywhere around the world (col. 4, lines 40-41). The scenes are
constructed in three phases: land, water and sky surfaces (col. 5, line 20). The land
surface can comprise of trees, houses, roads, lights, rocks (col. 5, lines 22-23),
mountains, lakes (col. 10, line 11), rivers, etc (col. 10, line 24). However not every
scene makes use of all the available objects therefore the final results, a 'gaming area'
or a template (col. 1, lines 20-21) database comprises of a smaller set of data from the
main or source database. The source or object database comprises of several smaller
databases, but only three are relevant for this office action: 2D, 3D-one axis and 3D-two
axis (col. 10, lines 38-44). The 2D database contains images of railroad tracks, roads,
creeks, streams (col. 14, line 33), streets, sidewalks, building fronts, etc (col. 14, lines
42-43). The system is able to manipulate or transform the size, position, rotation, etc all
of these objects based on the control functions (col. 8, lines 14-21). The controllers
perform the control functions, like determining the intensity of each object based upon
range (col. 7, lines 55-56) between the object and the aircraft. The 3D databases

contain three-dimensional objects like larger buildings, ships, tanks and other points of interest (col. 5, line 61-64).

4.   Based on the discussion above, Graf discloses the applicant's limitations of claims 1-4, 12-13, 15-16, 20, 23-24, 31-33. Graf discloses a source database that contains geographic features such as roads, a template database that contains a smaller set of data from the source, and this template provides navigation-related functions. The navigational functions discussed by Graf are vehicle positioning (col. 4, line 55) and the display of a 'gaming area' or map of a fictitious or real world location (col. 4, line 41) at a high level of accuracy and detail (col. 6, lines 55-57) of its geographical features (Fig. 1) containing natural structures like 2D rivers or man-made structures like 3D buildings. Aircraft flight simulators, which are considered a video game, inherently incorporate other navigational functions that were not or briefly mentioned like velocity, acceleration, time, altitude changes (col. 4, line 55), an enemy aircraft or points of interest (col. 5, lines 62-63) on the radar, etc that are found in vehicles like aircrafts that require a navigation system like a radar.

5.   Regarding claim 5, Graf discloses the 'gaming area' or template area is defined as covering an area of 25 to 100 square miles (col. 4, lines 44-45). Therefore the 'gaming area' or template database is defined by an overall size.

6.   Regarding claim 28, Graf discloses that a person or end user can manually search the object library for bushes, trees, mountains (col. 10, lines 7-10) and place them in the 'gaming area' (col. 7, lines 1-8) or template database. Therefore the system provides programming tools that allow the users to create their own scenarios for play.

7.   Regarding claims 7-8 and 10-11, Graf discloses the surface library containing different road surfaces (col. 5, lines 50). The scenes are created either by the computer

or a manual operator (col. 10, lines 7-10; col. 7, lines 1-8) therefore a scene can

consisting of roads of different widths and shaped in any direction the user or computer

sees fit. In regards to road alignment or a ground plan, the scenes show the course of a

road therefore this claim limitation is also incorporated in the prior art.

8.   Regarding claim 34, Graf discloses that the scenes can represent a real-life

places from anywhere around the world (col. 4, lines 40-41). Therefore the prior art

inherently incorporates the geographic locale representing a group of a continent, a

country, a region, city or neighborhood within a country or city.

9.   Regarding claim 35, Graf discloses that a scene can represent a fictitious place

like a future historical period or a real world place. The limitation of generating scenes of

a past or present historical period falls with in the scope of the prior art since a past or

present location is still a real world place.

10.   Regarding claims 29-30 and 36-37, Graf discloses a computer controlled imaging

system containing databases of images, objects (claim 1) and other forms of data. A

computer is an apparatus that inherently incorporates computer-readable medium like

an optical disk (Fig. 15-16) and hard drives in order for a program or system of data

structures to function properly.

Claims 25 and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by

Lechner (US 2003/0059743 A1).

11.   Lechner discloses a system that automatically generates a terrain model for

displaying a predefined mission route (Abstract). The pilot defines the mission route and

would use the system disclosed by Lechner to practice their mission (par. 2, lines 1-13).

Once a mission is defined by the pilot, a terrain model designer flies out to the real

world area to obtain images of the mission terrain (par. 6, lines 1-4) and its surrounding

area based on the route and the characteristics of the aircraft like the turning radius and

sensor range (par 3, lines 1-11). The model designer takes the terrain data and inputs it

into the terrain engine (par. 9, lines 1-2) to create terrain models (par. 54, lines 1-2).

Lechner discloses that the military or a commercial airline company (par. 29, line 6-7)

pilot defines the mission routes and since the pilot and terrain model designer are

always in communication with each other to properly create the simulation it follows that

they both works for the same employer: the military or a commercial airline company.

Therefore one group or party, "The Boeing Company" creates the system and another

group or party collects the terrain or geographic database. The prior art inherently

incorporates the selling of the flight simulator or computer game since it is disclosed that

the military is a possible user and "The Boeing Company" created the system.

Therefore in order for the military to obtain the system "The Boeing Company" would

have to sell it to them.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459

(1966), that are applied for establishing a background for determining obviousness

under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.

    3.   Resolving the level of ordinary skill in the pertinent art.

    4.   Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 6, 9, 17, 18, 19 and 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Graf et al. (US 4,645,459) in view of Huston et al. (US 6,146,143).

12.   The above description of the invention disclosed by Graf and the limitations they pertain too are considered with in this art rejection as well. Graf discloses a vehicle simulator and uses the example of an aircraft simulator to describe the invention. However Graf is silent about simulating a ground vehicle like a car or motorcycle as a possible application for the system (Graf: col. 1, lines 15-17).

13.   Houston discloses a ground vehicle simulator able to create a traffic event on a roadway during various types of weather conditions (Houston: Abstract). The system can create various types of roads: highways, rural roads, city streets, etc and accurately simulate the features associated with these roads (Houston: col. 4, lines 44-49) like the density, shape, and width of the road. Houston also discloses lane dividers (Houston: Fig. 7), lane strip markings (Houston: Fig. 6), curbs, sidewalks and crosswalk (Houston: Fig. 6), pavement (Houston: Fig 7), 3D cityscape and landscape (Houston: Fig. 5-7), and fog or clouds (Houston: col. 2, line 50). Houston discloses that the driver must conform to the relevant traffic rules (Houston: col. 5, lines 32-35) and even though traffic signals, signs and speed bumps are not specifically mentioned they are items that are associated with the roads (Houston: col. 4, lines 44-49), which are necessary to test the user's knowledge of the traffic laws and etiquette. It would have been obvious to one of ordinary skill in the art to combine the teaches of Houston about the necessary items

needed to simulate a ground vehicle into the system disclosed by Graf in order to further expand on the possible applications for the Graf system.

14.   Regarding claim 9, Houston discloses a 'highway' as a possible road for simulation (Houston: col. 1, lines 44-49). An expressway is a wide highway with a high speed limit, therefore the prior art also teaches this claim limitation.

15.   Regarding claim 19, Houston discloses a pavement (Houston: Fig 6-7), however fails to mention anything about the pavement's color. It would have been obvious to one of ordinary skill to color the pavement to help the driver further distinguish the road from the sidewalk and identify the dividers (Fig. 7).

16.   Regarding claims 19 and 22, Houston discloses images of a city and mentions simulating roads of various kinds in a realistic manner. However is silent about displaying lampposts, fences, shrubbery, and lawns. It would have been obvious to one of ordinary skill in the art to include these items when the system is simulating a road in the suburbs.

Claims 14 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Graf et al. (US 4,645,459) in view of one of ordinary skill.

17.   The above description of the invention disclosed by Graf and the limitations they pertain too are considered with in this art rejection as well. Graf discloses a computer or manual operator generating the scenes that can contain a variety of objects that represent nature: trees, lakes, bushes, etc. Therefore a person or a computer has the means to display a park. However the prior art fails to disclose displaying a golf course. It would of have been obvious to one of ordinary skill in the art to include a sand trap object in the 2D surface library to further expand the systems ability to create diverse environments.

Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lechner (US 2003/0059743 A1) in view of one of ordinary skill.

18.   The above description of the invention disclosed by Lechner and the limitations they pertain too are considered with in this art rejection as well. Lechner discloses generating a simulation of a mission route for military exercises (par. 29, line 6). However fails to disclose generating imaginary locale. It would have been obvious to one of ordinary skill in the art to allow programmer to create images and scenes of mission routes when a terrain model designer cannot obtain the image for political reasons like a 'no fly zone' but the military wants to prepare for a 'first strike' or secret mission.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christian E. Rendón whose telephone number is 571-272-3117. The examiner can normally be reached on 9 - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert E. Pezzuto can be reached on 571-272-6996. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Christian E Rendón
Examiner
Art Unit 3714

CER

Ronald Renecu
Primary Examiner
5/9/07